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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT LEE ANGELL and JAMES R. KRAEMER

Appeal 2016-001207
Application 11/862,323[1]
Technology Center 3600

Before HUBERT C. LORIN, MICHAEL C. ASTORINO, and MATTHEW S. MEYERS, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Robert Lee Angell, et al. (Appellants) seek our review under 35 U.S.C. § 134(a) of the Final Rejection of claims 1–25. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

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[1] The Appellants identify International Business Machines Corporation as the real party in interest. App. Br. 2.

THE INVENTION

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

> 1. A computer implemented method for ranking a potential customer based on a set of risk assessment factors corresponding to the potential customer, the computer implemented method comprising:
>
> a computer processing external data associated with the potential customer in a set of data models to generate, by a processor, the set of risk assessment factors for the potential customer, wherein the external data comprises dynamic customer data elements generated in real-time as the potential customer is approaching a retail facility, and wherein the external data is formed by analyzing data received external to the retail facility;
>
> the computer ranking the potential customer based on the set of risk assessment factors and cohort data including a speed at which the potential customer is walking and a determination that the potential customer is loitering or pacing, wherein the ranking based on the set of risk assessment factors corresponding to the potential customer approaching the retail facility indicates whether the potential customer poses a risk to the retail facility;
>
> responsive to the computer determining that the ranking based on the set of risk assessment factors corresponding to the potential customer approaching the retail facility is greater than a threshold, the computer identifying the potential customer as a desirable customer and the computer initiating marketing incentives targeted to the desirable customer, wherein the computer initiating the marketing incentives further comprises the computer notifying an employee associated with the retail facility to assist the desirable customer;
>
> responsive to the computer determining that the ranking based on the set of risk assessment factors corresponding to the potential customer approaching the retail facility indicates the potential customer is an undesirable customer, the computer initiating marketing disincentives targeted to the undesirable customer, wherein the computer initiating the marketing disincentives comprises the

computer creating a negative ambiance in an area of the retail facility associated with the undesirable customer; and

responsive to the computer determining that the ranking based on the set of risk assessment factors corresponding to the potential customer approaching the retail facility indicates the potential customer is a wanted criminal, the computer displaying a warning message on a display device located outside the retail facility as the wanted criminal approaches the retail facility, the computer locking doors to the retail facility to deter the wanted criminal from entering the retail facility, and the computer notifying police of a presence of the wanted criminal at the retail facility, wherein the computer displaying the warning message as the wanted criminal approaches the retail facility comprises informing the wanted criminal that the doors to the retail facility have been locked and that the police have been notified of the presence of the wanted criminal at the retail facility.

THE REJECTION

The following rejection is before us for review:

1. Claims 1–25 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

ISSUE

Did the Examiner err in rejecting claims 1–25 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter?

ANALYSIS

The Appellant argued the claims as a group. *See* App. Br. 11–15. We select claim 1 as the representative claim for this group, and the remaining claims 2–25 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014) identifies a two-step framework for determining whether claimed subject matter is judicially-excepted from patent eligibility under § 101. "We must first determine whether the claims at issue are *directed to* a patent-ineligible concept," such as an abstract idea. *Alice*, 134 S. Ct. at 2355 (emphasis added.) Step two is "a search for an 'inventive concept'—*i.e.*, an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to *significantly more* than a patent upon the [ineligible concept] itself.'" *Alice*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012) (emphasis added.)

> With respect to the first step, the Examiner determined that
>
> [t]he claimed invention is directed to generat[ing] a set of risk assessment factors for a potential customer and ranking the potential customer based on the risk assessment factors and cohort data. Generating a set of risk assessment factors for a potential customer and ranking the potential customer based on the risk assessment factors and cohort data are "certain methods of organizing human activities" and mathematical relationships/formulas. As noted above, certain methods of organizing human activities and mathematical relationships/formulas are examples of abstract ideas explicitly referenced in *Alice Corp*.

Final Act. 5 (emphasis omitted.)

The Appellants challenge said determination on the grounds that

- "none of the claims recite a mathematical formula";
- "all of the limitations of the independent claims taken together as an ordered combination cannot be performed by a human 'in real-time as

the potential customer is approaching a retail facility ...' as recited in the independent claims";

- "*Alice* did not hold that 'ranking a potential customer based on a set of risk assessment factors corresponding to the potential customer' as recited in the independent claims is a method of organizing human activity and, therefore, an 'abstract idea.'"; and,
- "the Examiner did not provide citations to other case law or references that show 'ranking a potential customer based on a set of risk assessment factors corresponding to the potential customer' has been held as or could be held as a method of organizing human activity that is an abstract idea."

App. Br. 13. The challenge is unpersuasive as to error in the rejection.

Claims to an abstract idea are not made less abstract simply because a mathematical formula is not recited. Nor are claims to an abstract idea made less abstract because a human cannot practice what is claimed.

The question under *Alice* step 1 is not whether a mathematical formula is recited or not, or whether a human can practice what is claimed or not, but whether claims are "directed to a patent-ineligible concept." The "directed to" inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether "their character as a whole is directed to excluded subject matter." *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see Genetic Techs. Ltd. v. Merial L.L.C.*, 2016 WL 1393573, at *5 (Fed. Cir. 2016) (inquiring into "the focus of the claimed advance over the prior art")." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016).

In that regard, the Specification states that "the present invention is directed to a computer implemented method, apparatus, and computer usable program product for ranking a customer using dynamic customer data." Para. 3. The Specification explains that "[i]n the past, merchants frequently had a personal relationship with their customers" (para. 4) and this helped a merchant "determine whether a customer was a good customer" (para. 4). But now "merchants and employees of retail businesses rarely recognize regular customers." Para. 5.

> [C]urrent solutions do not utilize all of the potential dynamic customer data elements that may be available for identifying customers that should be marketed to, customers that should be encouraged to shop at the retail facility, customers that should not receive marketing content, and customers that should be discouraged from shopping at the retail facility.

Para. 9.

> The illustrative embodiments provide a computer implemented method, apparatus, and computer usable program product for ranking a potential customer. In one embodiment, external data associated with the potential customer is processed in a set of data models to generate a set of risk assessment factors for the potential customer. The external data comprises dynamic customer data elements generated in real-time as the potential customer is approaching a retail facility. The potential customer is ranked based on the risk assessment factors. The ranking indicates whether the potential customer poses a possible risk to the retail facility. In response to the ranking indicating that the potential customer poses the possible risk, actions are initiated to deter the potential customer from entering the retail facility.

Para. 10.

The question is whether the claims as a whole "focus on a specific means or method that improves the relevant technology" or are "directed to

a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). In this case, the claims as a whole in light of the Specification are focused on gathering data and generating therefrom a set of risk assessment factors for a potential customer and then based on said factor the potential customer is ranked, the ranking having attendant consequences. *Cf. In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016) (the claims' focus "was not on an improved telephone unit or an improved server.") In light of Specification's description of the problem and solution, the advance over the prior art by the claimed invention lies in the gathering of data and generating therefrom of a set of risk assessment factors for a potential customer. This is the heart of the invention. *Cf. Intellectual Ventures I LLC v. Erie Indemnity Co.*, 850 F.3d 1315, 1328 (Fed. Cir. 2017) ("the heart of the claimed invention lies in creating and using an index to search for and retrieve data . . . an abstract concept.")

Given all this, in our view, the Examiner's determination that "[t]he claimed invention is directed to generate a set of risk assessment factors for a potential customer and ranking the potential customer based on the risk assessment factors and cohort data" (Final Act. 5) reasonably comports with a reading of the claims as a whole in light of the Specification.

The next question is whether said "generat[ing] a set of risk assessment factors for a potential customer and ranking the potential customer based on the risk assessment factors and cohort data" (Final Act. 5) to which the claims have been determined to be "directed to" is an abstract

idea. The Appellants argue that said generating/ranking is not and has not been shown to be "a method of organizing human activity and, therefore, an 'abstract idea.'" (App. Br. 13). But

> [t]he Supreme Court has not established a definitive rule to determine what constitutes an "abstract idea" sufficient to satisfy the first step of the *Mayo/Alice* inquiry. *See id.* at 2357. Rather, both this court and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.

Enfish, 822 F.3d at 1334. In that regard, we see little difference between the claims here directed to "generat[ing] a set of risk assessment factors for a potential customer and ranking the potential customer based on the risk assessment factors and cohort data" and those in, for example, *Bilski v. Kappos*, 130 S. Ct. 3218 (2010), directed to risk hedging.

With respect to the second step, the Examiner determined that

> The steps or acts performed (utilizing a processor) in independent method claim 1 are not enough to qualify as "significantly more" than the abstract idea itself, since the claim [is] a mere instruction to apply the abstract idea. Furthermore, there is no improvement to another technology or technical field, no improvements to the functioning of the computer itself, and no meaningful limitations beyond generally linking the use of an abstract idea to a particular technical environment, and the claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional.

Final Act. 5–6.

The Appellants argue that "the Examiner does not cite in the Final Office Action dated November 20, 2014 to any prior art reference or combination of prior art references that allegedly teaches or suggests the

limitations recited in the claims" (App. Br. 13), and therefore, the claims necessarily are patent-eligible. Although novelty is a factor to be considered when determining "whether the claims contain an 'inventive concept' to 'transform' the claimed abstract idea into patent-eligible subject matter" *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014), finding of novelty or nonobviousness does not necessarily lead to the conclusion that subject matter is patentable eligible. "Groundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (2013). Here the Appellants have not shown novel features that transform the abstract idea into patent-eligible subject matter.

The Appellants argue that "[i]ndependent claims 1, 13, 21, and 23 transform the nature of the claims into a patent eligible application by reciting an improvement in an existing technological process of risk assessment and reduction." App. Br. 13. The Appellants point to various consequences from evaluating a potential customer based on his/her ranking, particularly those limitations calling for, *inter alia*, a computer to "lock[ ] doors to the retail facility to deter the wanted criminal from entering the retail facility" (claim 1).

The Appellants do not adequately explain in what way the recited computer transforms the claim, as a whole, into "significantly more" than a claim to the abstract idea itself in effecting said consequences. The record supports the Examiner's view that no improvements to the functioning of the computer itself is entailed. This is so because the Specification indicates that the invention can be performed using conventional and generic

computers. *See, e.g.*, para. 29. "We have repeatedly held that such invocations of computers and networks that are not even arguably inventive are 'insufficient to pass the test of an inventive concept in the application' of an abstract idea." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016). *See Alice*, 134 S. Ct. at 2359 ("Taking the claim elements separately, the function performed by the computer at each step of the process is '[p]urely conventional.'") (citing *Mayo*, 132 S. Ct. at 1298). *See Alice*, 134 S. Ct. at 2359 ("Considered 'as an ordered combination,' the computer components of petitioner's method 'ad[d] nothing . . . that is not already present when the steps are considered separately.'").

Lastly, the Appellants argue that "the claims are necessarily rooted in computer technology in order to overcome a specific problem in risk assessment and reduction." App. Br. 14. But, as we have stated, the record supports otherwise. Without more by the way of contrary evidence, of which there is none at present, we are unpersuaded that the Appellants have shown error in the rejection on the ground that the claims include an element or a combination of elements sufficient to ensure that the claimed subject matter amounts to significantly more than the abstract idea of "generat[ing] a set of risk assessment factors for a potential customer and ranking the potential customer based on the risk assessment factors and cohort data."

The Appellants remaining arguments have been considered but are not persuasive as to error in the rejection.

The rejection is sustained.

DECISION

The decision of the Examiner to reject claims 1–25 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED